KHASIN, G.A.; KOLYASNIKOVA, R.I.; VACHUGOV, G.A.; BOYARSHINOV, V.A.; GAVRILOV, O.T.; ALEKSEYENKO, M.F.; MELIKHOV, P.I.; VYBORNOV, A.F.

Electric slag refining of stainless, heat-resistant steel.
Stal' 23 no.10:908-910 O '63. (MIRA 16:11)

L 16306-65 EWT(m)/EWA(d)/T/EWP(t)/EWP(b) MJW/JD
ACCESSION NR: AP4045659 S/0133/64/000/009/0836/0839

AUTHOR: Gavrilov, O. T.; Boyarshinov, V. A.; Shalimov, Al. G.; Dolinin, D. P.; Khasin, G. A.; Kolyasnikova, R. I.; Savenok, L. L.

TITLE: Quality of vacuum-arc-melted ball-bearing steel

SOURCE: Stal', no. 9, 1964, 836-839

TOPIC TAGS: ball bearing steel, ShKh 15 ball bearing steel, vacuum arc melted ShKh 15 steel, high grade ShKh 15 steel, improved melting method

ABSTRACT: A study has been made to determine the causes of flaws in consumable-electrode vacuum-arc-melted ShKh 15 steel for ball bearings and to find the means to eliminate them. As a result, several improvements in melting technique have been adopted, so that it now is possible to obtain high-grade steel for precision and special-purpose ball bearings by a single vacuum-arc melting of the ShKh 15-steel consumable electrodes. The "spot" inhomogeneity of the ingots, formerly the cause of 90% of the rejects, was fully eliminated by using symmetrical coaxial current conductor and by eli-

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L 16306-65
ACCESSION NR: AP4045659

minating nonsymmetrical magnetic masses. Light stringers, or stratified crystallization, were completely eliminated by automatic control of the electrode feed. Another type of ingot flaw, bright spots containing 0.04—0.05% less carbon than the bulk of the metal, was eliminated by improving the electrode holders and by leaving a portion of the electrode, 100—200 mm long, unmelted. The ingot pipe was eliminated by gradually decreasing the arc current from 4.0—4.4 Ka to 0.8—1.2 Ka during the last 10—15 min of melting. Orig. art. has: 10 figures and 3 tables.

ASSOCIATION: TsNIIChM and Zlatoustovskiy metallurgicheskiy zavod (Zlatoust Metallurgical Plant)

SUBMITTED: 00 ENCL: 00 SUB CODE: MM, IE

NO REF SOV: 000 OTHER: 000

Card 2/2

GAVRILOV, P.A.; LIVIN, S.S.

Verifying compliance with standards for abrasives.
Standartizatsiia 24 no.2:40 F '60. (MIRA 13:5)
(Abrasives--Standards)

GAVRILOV, P.A.; LITVIN, S.S.

Abrasive cloths. Standartizatsiia 26 no.8:49-51 Ag '62.
(MIRA 15:8)

(Abrasives—Standards)

GAVRILOV, P.A.; MIROKHIN, P.K.

New standards for abrasive tools. Standartizatsiia 29 no.1:56 Ja '65. (MIRA 18:4)

GAVRILOV, P.A., nauchnyy red.; PANASENKOVA, Ye.I., red.; VLASOVA, N.A., tekhn. red.

[Investigation of the critical parameters of reactor systems] Issledovaniia kriticheskikh parametrov reaktornykh sistem; sbornik statei. Moskva, Gos.izd-vo lit-ry v oblasti atomnoi nauki i tekhniki, 1960. 117 p.
(MIRA 14:5)

(Nuclear reactors)

L 18370-63 EPF(n)-2/EWT(m)/BDS/T-2 AFFTC/ASD/ESD-3/AFWL/SSD Pu-4
ACCESSION NR: AP3005218 DM S/0089/63/015/002/0115/0120

66

AUTHOR: Gavrilov, P. A.; Seliverstov, B. N.

TITLE: On the problem of the dynamics of nuclear power plants 19

SOURCE: Atomnaya energiya, v. 15, no. 2, 1963, 115-120

TOPIC TAGS: nuclear-power-plant dynamics, superheat reactor, Beloyarsk nuclear power plant, test stand, reactor coolant, desalted water, reactor theoretical investigation, reactor experimental investigation, perturbation, heat release, mathematical linear model, primary loop, secondary loop, nuclear reactor

ABSTRACT: A comparison has been made of the results of theoretical and experimental investigations of the dynamics of a test stand simulating the Beloyarsk nuclear electric station, which is equipped with a superheat reactor. The test stand consisted of a two-loop system with chemically desalted water serving as the coolant. The theoretical data were obtained on an electronic analog computer. In the experiment, a determination was made of the reactor runaway characteristics at small deviations of parameters from steady-state conditions and also under certain deep perturbations allowable by the safety conditions of

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L 18370-63
ACCESSION NR: AP3005218

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the stand. Perturbations amounting to 10—20% above steady-state conditions were produced by varying the following parameters: heat generation, feedwater flow-rate in the secondary loop, circulation-water flow rate in the primary loop, feedwater temperature in the secondary loop, and the degree of valve opening (leading to a cooler simulating the turbine). All data were continuously recorded. The experimental transient characteristics of some processes along with theoretical results are shown in Figs. 1 and 2 of the Enclosure. The results indicate that a linear mathematical model gives a good description of the dynamic behavior of a test stand at a perturbation amplitude of 20% as compared to steady-state conditions. The approach used in this investigation can be applied to other similar nuclear power plants. Orig. art. has: 4 figures and 5 formulas.

ASSOCIATION: none

SUBMITTED: 29Sep62	DATE ACQ: 06Sep63	ENCL: 02
SUB CODE: NS, PR	NO REF SOV: 006	OTHER: 004

Card 2/2

GAVRILOV, [illegible] A.; PODLAZOV, L. N.

" Nuclear power plant dynamic stability."

report submitted for 3rd Intl Conf, Peaceful Uses of Atomic Energy, Geneva, 31 Aug-9 Sep 64.

L 24212-65 EWT(m)/EPF(c)/EPF(n)-2/EPR Pr-4/Ps-4/Pu-4 DM

ACCESSION NR: AP5001265 S/0089/64/017/006/0439/0448

AUTHOR: Polushkin, K. K.; Yemel'yanov, I. Ya.; Delens, P. A.; Zvonov, N. V.; Aleksenko, Yu. I.; Grozdov, I. I.; Kuznetsov, S. P.; Sirotkin, A. P.; Tokarev, Yu. I.; Lavrovskiy, K. P.; Brodskiy, A. M.; Belov, A. R.; Borisyuk, Ye. V.; Gryazev, V. M.; Tetyukov, V. D.; Popov, D. N.; Koryakin, Yu. I.; Filippov, A. G.; Petrochuk, K. V.; Khoroshavin, V. D.; Savinov, N. P.; Meshcheryakov, M. N.; Pushkarev, V. P.; Surovegin, V. A.; Gavrilov, P. A.; Podlazov, L. N.; Rogozhkin, I. N.

TITLE: Atomic electric power installation "Arbus" with organic coolant and moderator

SOURCE: Atomnaya energiya, v. 17, no. 6, 1964, 439-448

TOPIC TAGS: small nuclear reactor, organic coolant, organic moderator, reactor economy, nuclear reactor

ABSTRACT: The paper is a summary of the SSSR # 307 report at the Third Inter-

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L 24212-65

ACCESSION NR: AP5001265

national Conference on Peaceful Uses of Atomic Energy, 1964. It describes an installation of a reactor in which organic liquid serves as the coolant, and as the moderator. The low-power reactors of about 5 Mw are expected to be economical in the remote regions where the usual energy sources are not available. A regeneration system is described for the coolant which removes the products of radiolysis. Orig. art. has: 7 figures

ASSOCIATION: None

SUBMITTED: 00 ENCL: 00 SUB CODE: NP

NR REF SOV: 000 OTHER: 000

Card 2/2

L 6959-66 EWP(m)/EPF(c)/EPF(n)-2/EWT(1)/EWT(m)/ETC/EWG(m)/ WW

ACC NR: AP5016681 SOURCE CODE: UR/0170/65/008/006/0768/0772

AUTHOR: Yemel'yanov, I. Ya.; Gavrilov, P. A.; Seliverstov, B. N.

ORG: none

TITLE: An investigation of the dynamic characteristics of heat transfer apparatus by the method of correlation analysis

SOURCE: Inzhenerno-fizicheskiy zhurnal, v. 8, no. 6, 1965, 768-772

TOPIC TAGS: stochastic process, thermal conduction, thermal excital, steam superheat

ABSTRACT: This paper is the extension of work of the authors [Gavrilov, P. A. and Seliverstov, B. N., *Atomnaya Energiya*, No. 8, 1963]. Certain dynamic characteristics are determined for the engineering model of the Beloyarsk Atomic Power Station imeni I. V. Kurchatov. Although the test stand in general had a low noise level the authors noted tendencies toward oscillation during entering and exiting flows at the superheater. The artificial excitation of the exiting flow signal impeded the study when it equalled the stimulus noise. The oscillatory fluctuations act stochastically

Card 1/2 UDC: 621.3.012.6 + 536.27

L 6959-66

ACC NR: AP5016681

and are deemed to be due to unseparated water and moisture in the superheater channel. At normal water level in the evaporator, steam generation instabilities cause pressure oscillations in the evaporator which are damped out by the time the superheater mouth is reached. This is because the steam is compressed and the evaporator is relatively large. As the level rises volume decreases and steam generation fluctuations appear as immediate pressure oscillations at the superheater. Oscillations in front of the throttle valve of the condenser are identical with those in the evaporator. The stochastic behavior of the superheater channel exit pressures and those of the evaporator point to a statistical method of correlation analysis for determining dynamic characteristics. The mathematical model for the superheater channel is based on equations describing: thermal equilibium of discharged steam, of thermal conductivity fuel element and the pressure drop in the line between superheater and steam generator. Normalized correlation terms are approximated by a sum of components, of which the primary component simulates the harmonic oscillation of a feed pump piston. The secondary component, a high frequency component relating the time of heat transfer (from the heating wall to the boiling fluid) to the steam bubble life in the boiling volume, simulates the hydrodynamic instability of the steam generator. Orig. art. has: 5 figures and 3 formulas.

SUB CODE: TD,MA/ SUBM DATE: 19Sep64/ ORIG REF: 004/ OTH REF: 000

Card 2/2 rds

L 5075-66 EWT(m)/EPF(n)-2/T DM
ACC NR: AP5022630

UR/0089/65/019/002/0131/0137
621.311.25

23
B

AUTHOR: Yemel'yanov, I. Ya.; Gavrilov, P. A.; Seliverstov, B. N.

TITLE: Investigation of dynamic characteristics of the first power unit of the Beloyarsk atomic power plant im. I. V. Kurchatov

SOURCE: Atomnaya energiya, v. 19, no. 2, 1965, 131-137

TOPIC TAGS: nuclear power plant, nuclear power reactor

ABSTRACT: The investigations were conducted by using the method of reactor-system dynamic simulation. A special electronic analog computing machine was used simultaneously with the operating control system. Physical and heat-generating transient phenomena were interpreted by means of differential equations and the parameters were established. Neutron processes were also described by differential equations and the changes in densities and temperatures of coolants, uranium, and graphite were determined. The authors do not deal with the mathematical analysis itself. They, instead, describe the techniques involved in such research; evaluate the results, and present some practical examples. A schematic diagram of steam-generating arrangement is given. The simultaneous operation of the analog machine and of the control system

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ACC NR: AP5022630

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is explained and illustrated. The changes in temperatures and reactivities under different operational conditions are reflected in many curves. In addition, the theoretical characteristics of the reactor were compared with the experimental data. Finally, it is stated that the analysis of reactor dynamics was essential to the determination and verification of the reactor stability. As a result of these investigations, new optimal parameters for the main control system were selected. Orig. art. has: 1 diagram, 1 photo, 11 graphs and 1 table.

ASSOCIATION: none

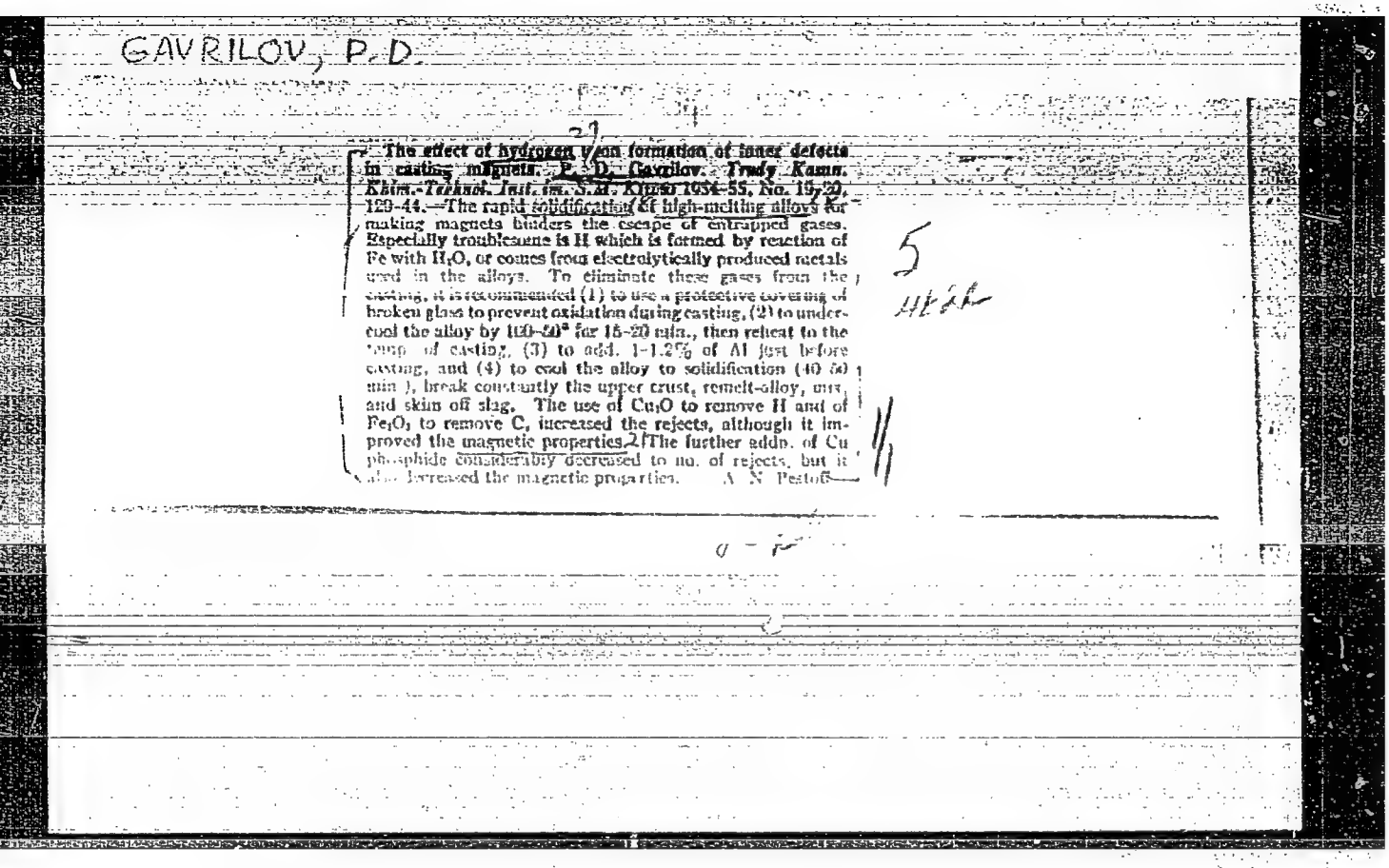
SUBMITTED: 18Sep64 ENCL: 00 SUB CODE: NP

NO REF SOV: 003 OTHER: 000

Card 2/2

GAVRILOV, P.D.

Effect of cyclic aging on magnetic properties of "magnika" alloys.
Trudy AKHTI no.18:83-87 '53 [publ. '54]. (PIRA 12:11)
(Alloys--Magnetic properties)



GAVRILOV, P. D.

The effect of hydrogen upon formation of inner defects in casting magnets. P. D. Gavrilov. *Trudy Kazan. Khim.-Tekhnol. Inst. im. S. M. Kirova* 1954-55, No. 19, 120-44.—The rapid solidification of high-melting alloys for making magnets hinders the escape of entrapped gases. Especially troublesome is H which is formed by reaction of Fe with H_2O, or comes from electrolytically produced metals used in the alloys. To eliminate these gases from the casting, it is recommended (1) to use a protective covering of broken glass to prevent oxidation during casting, (2) to undercool the alloy by 100-50° for 15-20 min., then reheat to the temp. of casting, (3) to add 1-1.2% of Al just before casting, and (4) to cool the alloy to solidification (40 to 60 min.), break constantly the upper crust, remelt alloy, stir, and skim off slag. The use of Cu_2O to remove H and of Fe_2O_3 to remove C, increased the rejects, although it improved the magnetic properties. The further addn. of Cu phosphide considerably decreased the no. of rejects, but it also increased the magnetic properties. A. N. Pestov

SOV/129-59-2-14/16

AUTHOR: Gavrilov, P.D., Candidate of Technical Sciences

TITLE: Heat Treatment of Metals in Oxygen-free Media (Termicheskaya obrabotka metallov v beskislorodnykh sredakh)

PERIODICAL: Metallovedeniye i Termicheskaya Obrabotka Metallov, 1959, Nr 2, pp 59 - 60 (USSR)

ABSTRACT: The authors have proposed and tested a method of heating metals in hermetically sealed vessels, applying metallic sodium as an absorbing medium of oxygen.

As containers, stainless-steel vessels with a lid, welded sections of seamless tubes or welded cells can be used. In addition to the components to be heated, metallic sodium is placed in the vessel, the weight of which equals the weight of oxygen inside the vessel. The metallic sodium oxidises very easily during heating and thus absorbs the oxygen in the vessel so that the components are virtually being heated in a nitrogen atmosphere. Work with sodium does not involve any difficulty or danger provided certain precautions are taken. The authors of this paper have applied this method for annealing and ageing components made of beryllium

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Heat Treatment of Metals in Oxygen-free Media

bronze, annealing of molybdenum permalloy, ageing of cobalt-tungsten cores, annealing of transformer steel, tempering of axes of clock mechanisms, etc.
There is 1 figure.

ASSOCIATION: Kazanskiy khimiko-tekhnologicheskiy institut (Kazan' Chemico-technological Institute)

GAVRILOV, P.D.

S/137/60/000/006/004/015
A006/A001

Translation from: Referativnyy zhurnal, Metallurgiya, 1960, No. 6, p. 277, # 13676

AUTHORS: Gavrilov, P.D., Kurbangaleyev, R.M., Alentov, A.N., Markovich, Yu.N.

TITLE: The Effect of Iron on Magnetic Properties of a Copper-Cobalt Alloy

PERIODICAL: Tr. Kazansk. khim.-tekhnol. in-ta, 1957 (1959), No. 22, pp. 161-171

TEXT: The authors studied the effect of Fe admixtures ($\sim$ 2%) on the magnetic properties of a 50% Cu - 20% Ni 30% Co-alloy. Tests wer made with cast, cast-annealed specimens (850°C, 8 - 32 hrs) and specimens subjected to heat treatment to improve their magnetic properties (oil and water quenching at 1,150°C, tempering at 650°C for 3 and 6 hours); and rolled specimens. Best deformability was revealed in specimens annealed for 16 hours. B_r of 4100 gauss and H_c of 560 oersted were obtained after oil quenching and temper-

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S/137/60/000/006/004/015
A006/A001

The Effect of Iron on Magnetic Properties of a Copper-Cobalt Alloy

ing for 6 hours. Magnetic characteristics of an alloy containing up to 2% Fe are by 20-40% below the maximum values attainable for this alloy without Fe. It is recommended to clean the crucible carefully, if a Fe-alloy was previously melted in it, and to use a quartz mixer instead of an iron one.

Ye.V.

Translator's note: This is the full translation of the original Russian abstract.

Card 2/2

83419

S/081/60/000/012(II)/002/010
A006/A001

18.1142

Translation from: Referativnyy zhurnal, Khimiya, 1960, No. 12 (II), p. 434, # 48001

AUTHOR: Gavrilov, P.D.

TITLE: Stability of Magnetic Copper Cobalt Alloy and the "Magniko" Type Alloy in Some Aggressive Media

PERIODICAL: Tr. Kazansk. khim.-tekhnol. in-ta, 1957, (1959) No. 22, pp. 223-230

TEXT: Investigations were made into the corrosion resistance under atmospheric conditions, in water steam sea water, and solutions of NaOH, H_2SO_4, HCl (acid) and HNO_3, of magnetic "Magniko" type alloys (Co 25.26%, Ni 14.61%, Cu 2.8%, Al 8.46%, Si 0.02%, Mn 0.35% S and P traces, the rest Fe) and the "Kuniko" type alloys (Cu 52.2%, Ni 20.52%, Co 27.25%, the rest Fe). The following conclusions are drawn: 1. Both the alloys are relatively resistant under atmospheric conditions, (testing of specimens during a year in open atmosphere), in water steam at 100% humidity, and in salt solutions (sea water). Changes in the weight of specimens are insignificant, but the surface loses its luster. 2. In alkaline solutions (tests in a 5% NaOH solution) the "Magniko" alloy is unstable and the

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83419

S/081/60/000/012(II)/002/010
A006/A001

Stability of Magnetic Copper Cobalt Alloy and the "Magniko" Type Alloy in Some Aggressive Media

"Kuniko" alloy absolutely stable. 3. The "Magniko" alloy corrodes intensively in a 5% H_2SO_4 solutions while the "Kuniko" alloy proves to be rather resistant at 144-hour tests in 5 and 10% H_2SO_4 and 5% HCl solutions. 4. In a 5% HNO_3 solution both the alloys are unstable. This is manifested in the violent liberation of hydrogen and brown coloring of the solution. The chemical analysis has shown that all the components contained in the alloy pass simultaneously into the solution.

L. Kamionskiy

Translator's note: This is the full translation of the original Russian abstract.

Card 2/2

GAVRILOV, P.D., inzh.

Repair of the electric motors of cutter-loaders. Sbor. nauch. trud. Kem. gor. inst. no.5:3-10 '64.

(MIRA 18:3)

1. Gorno-elektromekhanicheskiy fakul'tet Kemerovskogo gornogo instituta.

VINOGRADOV, Boris Vladimirovich; LISITSYN, S.V., inzh., red.; KUZNETSOV, N.S., inzh., red.; GAVRILOV, P.G., kand.tekhn.nauk, red.; SOMOVA, T.M., inzh., red.izd-va; DUGINA, N.A., tekhn.red.

[Dimensions and layout of parts in the manufacture of machinery] Razmery i razmetka detalei v mashinostorenii. Moskva, Gos.nauchno-tekhn.izd-vo mashinostroit.lit-ry, 1960. 84 p. (Biblioteka razmetchika, no.13). (MIRA 13:11)
(Laying out (Machine-shop practice))

ANIKIN, Nikolay Aleksandrovich; DROBYSHEVSKAYA, Nadezhda Ivanovna; DUDINOV, Vladimir Alekseyevich; KON'KOV, Arkadiy Sergeyevich; KONYUKHOV, Sergey Mikhaylovich; MESHCHERINOV, Fedor Ivanovich; POLETSKIY, Aleksandr Timofeyevich; POLYAKOV, Gleb Maksimovich; SAL'NIKOV, Oleg Alekseyevich; CHERNOBAY, Dmitriy Gavrilovich; GAVRILOV, P.G., kand. tekhn.nauk, retsenzent; NEFED'YEV, G.N., kand. fiz.-mat. nauk; SOKOLOV, V.M., kand. fiz.-mat. nauk; SOKOLOVSKIY, V.I., kand. tekhn. nauk; RUDIN, S.N., inzh.; EYDINOV, M.S., kand. tekhn. nauk; DUBITSKIY, G.M., doktor tekhn. nauk, red.; ZAKHAROV, B.P., inzh., red.; KONOVALOV, V.N., kand. tekhn. nauk, red.; PERETS, V.B., kand. tekhn. nauk, red.; ROZENBERG, I.A., kand. ekonom. nauk, red.; STEPANOV, V.V., kand. tekhn. nauk, red.; SUSTAVOV, M.I., inzh., red.; SHABASHOV, S.P., kand. tekhn. nauk, red.; DUGINA, N.A., tekhn. red.

[Handbook for inventors and innovators]Spravochnik dlia izobretatelia i ratsionalizatora . [By] N.A.Anikin i dr. Izd.3., ispr. i dop. Moskva, Mashgiz, 1962. 791 p. (MIRA 16:1)
(Technological innovations—Mechanical engineering)

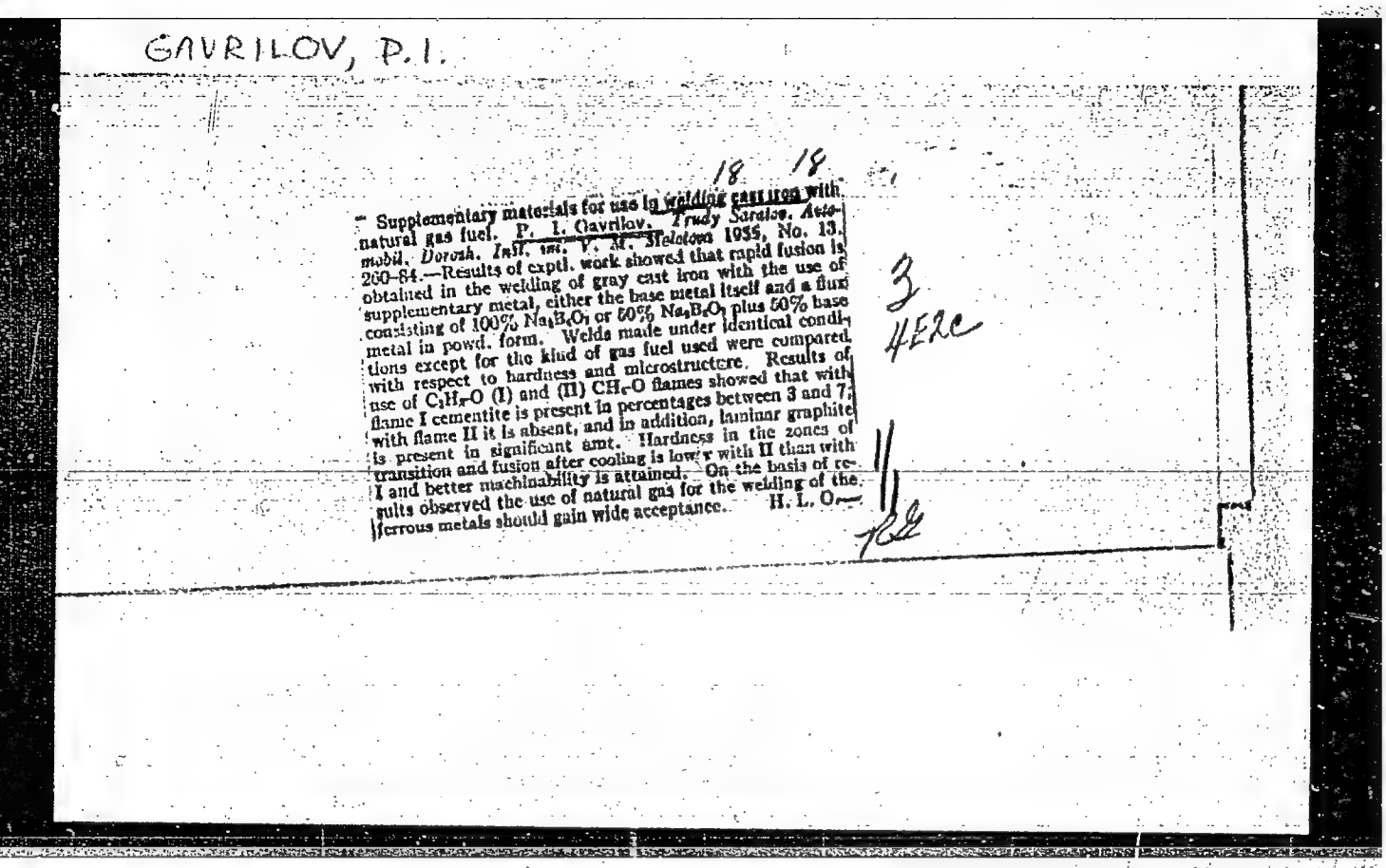
MIROSHNICHENKO, Boris Yakovlevich; BUKHVALOVA, K.I., inzh., red.vypuska; KUZNETSOV, N.S., inzh., red.; GAVRILOV, P.G., kand.tekhn.nauk, red.; SOMOVA, T.M., inzh., red.; MARCHENKOV, I.A., tekhn.red.

[Layout precision in the manufacture of machinery] Tochnost' mashinostroitel'noi razmetki. Sverdlovsk, Gos.nauchno-tekhn.izd-vo mashinostroit.lit-ry, 1960. 86 p. (Biblioteka razmetchika, no.4). (MIRA 14:1)

(Laying out--Machine-shop practice)

GAVRILOV, P. I.

Welding pig iron with natural gas from Elshansk deposits. P. I. Gavrilov. *Trudy Saratov. Avtomobil. Dorozh. Inst.*, Sbornik No. 12, 105-18(1953); *Referat. Zhur., Khim.* 1954, No. 34003.—Natural gas from Elshansk fields contained CH_4 94.8, C_2H_6 + C_3H_8 + C_4H_{10} 1.8, and N 3.4%; av. calorific value, 8450 cal./cu. m. The highest flame temp. was obtained at a $O:CH_4$ ratio of 1:2. The zone of max. temp., approx. 2000°, was 4-8 mm. from the center of the flame. All the welding work was done with a neutral flame having an $O:CH_4$ ratio of 1, because with an oxidizing flame cracks were found in the weld. As addnl. metal, gray pig of the same chem. compn. as the welded samples was used. The cost of welding with natural gas was approx. 1/5 of the cost of welding with C_2H_2. M. Hoch



GAVRILOV, P. I.

18 18

Supplementary materials for use in welding cast iron with natural gas fuel. P. I. Gavrilov. *Trudy Saratov. Avtomobil. Dorozh. Inst. im. V. M. Molotova* 1955, No. 13, 200–84.—Results of exptl. work showed that rapid fusion is obtained in the welding of gray cast iron with the use of supplementary metal, either the base metal itself and a flux consisting of 100% $Na_2B_4O_7$ or 50% $Na_2B_4O_7$ plus 50% base metal in powd. form. Welds made under identical conditions except for the kind of gas fuel used were compared with respect to hardness and microstructure. Results of use of C_2H_2O (I) and (II) CH_4O flames showed that with flame I cementite is present in percentages between 3 and 7; with flame II it is absent, and in addition, laminar graphite is present in significant amt. Hardness in the zones of transition and fusion after cooling is lower with II than with I and better machinability is attained. On the basis of results observed the use of natural gas for the welding of the ferrous metals should gain wide acceptance. H. L. O—

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SOV/137-57-11-21808

Translation from: Referativnyy zhurnal, Metallurgiya, 1957, Nr 11, p 162 (USSR)

AUTHOR: Gavrilov, P. I.

TITLE: Experimental Shop Welding With Natural Gas (Opyt svarki yestestvennym gazom na zavode)

PERIODICAL: Sb. nauchn. soobshch. v pomoshch' prom-sti. Saratovsk. avtomob.-dor. in-t, 1956, Nr 4, pp 9-12

ABSTRACT: Natural gas which is similar to the gas employed in the city of Saratov, but has a low heat value ($Q_l^w \cong 8500$ kcal/m^3), may be employed in welding of gray cast iron. Cast-iron welding rods 5-8 mm in diameter and 300-400 mm long are employed in conjunction with a flux containing 50% of borax and 50% of filings from a metal of the same type as the parent metal (the filings were sifted through a screen with openings not exceeding 0.2 mm). With the exception of Si, which is present in quantities equivalent to 3-4%, the welding rods have the same chemical composition as the parent metal. When welding is performed with nozzles of old design, the area of nozzle opening is enlarged. In order to expand the flame and ensure an adequate supply of oxygen and fuel gas,

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Experimental Shop Welding With Natural Gas

SOV/137-57-11-21808

additional openings are drilled along the middle line of the outer diameter and along the axis connecting the centers of these openings at an inclination of $\sim 5^{\circ}$ with respect to the centerline of the nozzle. Introduction of natural-gas welding in Saratov resulted in a 95-percent reduction in cost as compared with the cost of C_2H_2 welding.

G. K.

Card 2/2

SOV/137-57-6-10291

Translation from: Referativnyy zhurnal, Metallurgiya, 1957, Nr 6, p 128 (USSR)

AUTHOR: Gavrilov, P.I.

TITLE: A Mixture Composed of Natural Saratov Gas and Acetylene is Employed in Welding of Ferrous Metals (Ispol'zovaniye smesi saratovskogo gaza s atsetilenom dlya svarki chernykh metallov)

PERIODICAL: Tr. Saratovsk. avtomob.-dor. in-ta, 1956, Nr 14, pp 330-344

ABSTRACT: It has been established that a mixture composed of C_2H_2 and Saratov natural gas (CH_4) may be employed for welding of cast iron and low-carbon steel 1-5 mm thick. At a ratio $CH_4:C_2H_2$=90:10, the productivity of cast-iron welding is comparable to the productivity achieved with C_2H_2 alone. Metallographic investigations carried out on welded cast-iron specimens revealed that the quantity of cementite contained in the metal deposited by welding and in the transition zone is considerably smaller than in the case of welds performed with C_2H_2 alone. The temperature of the welding flame was measured at various values of the CH_4/C_2H_2 ratio. Thermal-balance calculations of the process corroborate the expediency of the employment of the CH_4-C_2H_2 mixture.

G.K.

Card 1/1

SOV/137-59-1-805

Translation from: Referativnyy zhurnal. Metallurgiya, 1959, Nr 1, p 108 (USSR)

AUTHOR: Gavrilov, P. I.

TITLE: An Investigation Into the Employment of Natural Gas for Shop Welding of Cast-iron Components (Issledovaniye svarki prirodnym gazom chugunnykh detaley v zavodskikh usloviyakh)

PERIODICAL: Tr. Saratovsk. avtomob.-dor. in-ta, 1957, Vol 15, Nr 2, pp 104-116

ABSTRACT: A report on a method for welding (W) of grey cast iron adopted at the Saratov heavy machinery plant; the W is performed with Saratov natural gas which, compared with other gases of domestic deposits, exhibits the lowest degree of contamination and possesses a high heat value (8500 kcal/nm^3). Processes of graphitization or decarburization of the metal deposited may take place during W of cast-iron parts. Compared with heavy welds, welded joints in small components exhibit a greater degree of decarburization. W temperatures produced by the natural gas ensure the formation of a grey cast-iron structure in the welds thus compensating for the contraction effects due to graphitization. The burners employed in W of

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An Investigation Into the Employment of Natural-gas for Shop Welding (cont.)

cast iron were modernized: Additional openings were drilled in the nozzles; the nitrogen injectors were made larger than the acetylene injectors. A flux is employed during the W operations. The welds obtained are of high quality and are readily machined.

K. V.

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PHASE I BOOK EXPLOITATION SOV/3516

Gavrilov, Pëtr Ivanovich, Candidate of Technical Sciences

Svarka chuguna i rezka metallov yestestvennym gazom (Welding of Cast Iron and Cutting of Metals with Natural Gas) [Saratov] Saratovskoye knizhnoye izd-vo, 1958. 46 p. 2,000 copies printed.

Sponsoring Agency: Nauchno-tekhnicheskoye obshchestvo mashinostroitel'noy promyshlennosti. Saratovskoye pravleniye.

Ed.: K. Sinitsina; Tech. Ed.: V. Lukashevich.

PURPOSE: This pamphlet is intended for metallurgical engineers, techniciana, and welders.

COVERAGE: Various aspects of the welding process carried out with the use of natural gas are reviewed and the necessity of utilizing natural gas for cutting and welding metals is pointed out. In this connection the composition of natural gas recovered in the Saratov region is analyzed along with reactions taking place when the gas is decomposed into carbon and hydrogen at a temperature of 1,000°C - 1,250°C . . . The oxidation of gas mixture is described

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and the proper handling of the welding torch explained. Main features of the welding process and welding equipment are reviewed along with the description of the base material, welding rod, flux material and techniques of the welding procedure. The author also analyzes impurities which natural gas may contain and makes suggestions as to how welders using natural gas from the Saratov region for welding purposes should be protected and safety measures maintained. The author points out that test results reveal that Saratov natural gas can be successfully used for seam welding of gray iron. Defects of various equipment eliminated by gas welding are illustrated. The process of metal cutting with the use of the above gas is also described and the desirability of substituting artificial acetylene by natural gas methane is pointed out with the emphasis on savings which may result from this substitution. There are 7 references, all Soviet.

TABLE OF CONTENTS:

Welding of Cast Iron (Cont.) SOV/3516

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5-13-60

GAVRILOV, P.I., dotsent, kand.tekhn.nauk

Shrinkage of a seam in cast iron during natural gas welding. Trudy SADI no.16 pt.1:95-101 '59. (MIRA 13:11)
(Gas welding and cutting)

GAVRILOV, P.I., kand.tekhn.nauk

Welding of gray cast iron by natural gas. Svar. proizv. no.12:31-33 D '61. (MIRA 14:12)

1. Saratovskiy politekhnicheskiy institut.
(Cast iron--Welding)
(Gas welding and cutting--Equipment and supplies)

GAVRILOV, P.I., kand. tekhn. nauk; SHUGAYENKO, V.V., inzh.

Selecting an efficient shape of cutter nozzle for cutting steel. Svar. proizv. 12:38-39 D '63. (MIRA 18:9)

1. Saratovskiy politekhnicheskiy institut.

GAVRILOV, P.I., kand.tekhn.nauk, dotsent

Metallurgical problems in natural-gas welding of cast iron. Izv. vys. ucheb. zav.; mashinostr. no. 12:193-202 '63. (MIRA 17:9)

GAVRILOV, P.I., kand. tekhn.nauk; SHUGAYENKO, V.V., inzh.

Effect of cutting on the structure and properties of steel when using natural gas in the heating flame. Svar. proizv. no.10:28-29 O '65. (MIRA 18:10)

1. Saratovskiy politekhnicheskiy institut.

GAVRILOV, Petr Ivanovich; MOSKOVA, A.F., red.

[Research on and the practice of welding with natural gas] Issledovanie i praktika svarki prirodnym gazom. Saratov, Izd-vo Saratovskogo univ., 1964. 254 p. (MIRA 19:1)

GAVRILOV, P.I., kand. tekhn. nauk, dotsent

Effect of separate components of filler metal on the quality of a seam in natural-gas welding of cast iron. Izv. vys. ucheb. zav.; mashinostr. no. 10:204-210 '65 (MIRA 19:1)

1. Submitted May 29, 1964.

GAV

LEYBOSHITS, L.M.; GAVRILOV, P.K., redaktor; SHAKHOVA, D.I., redaktor; POD"YAL'SKAYA, A.M., tekhnicheskiy redaktor

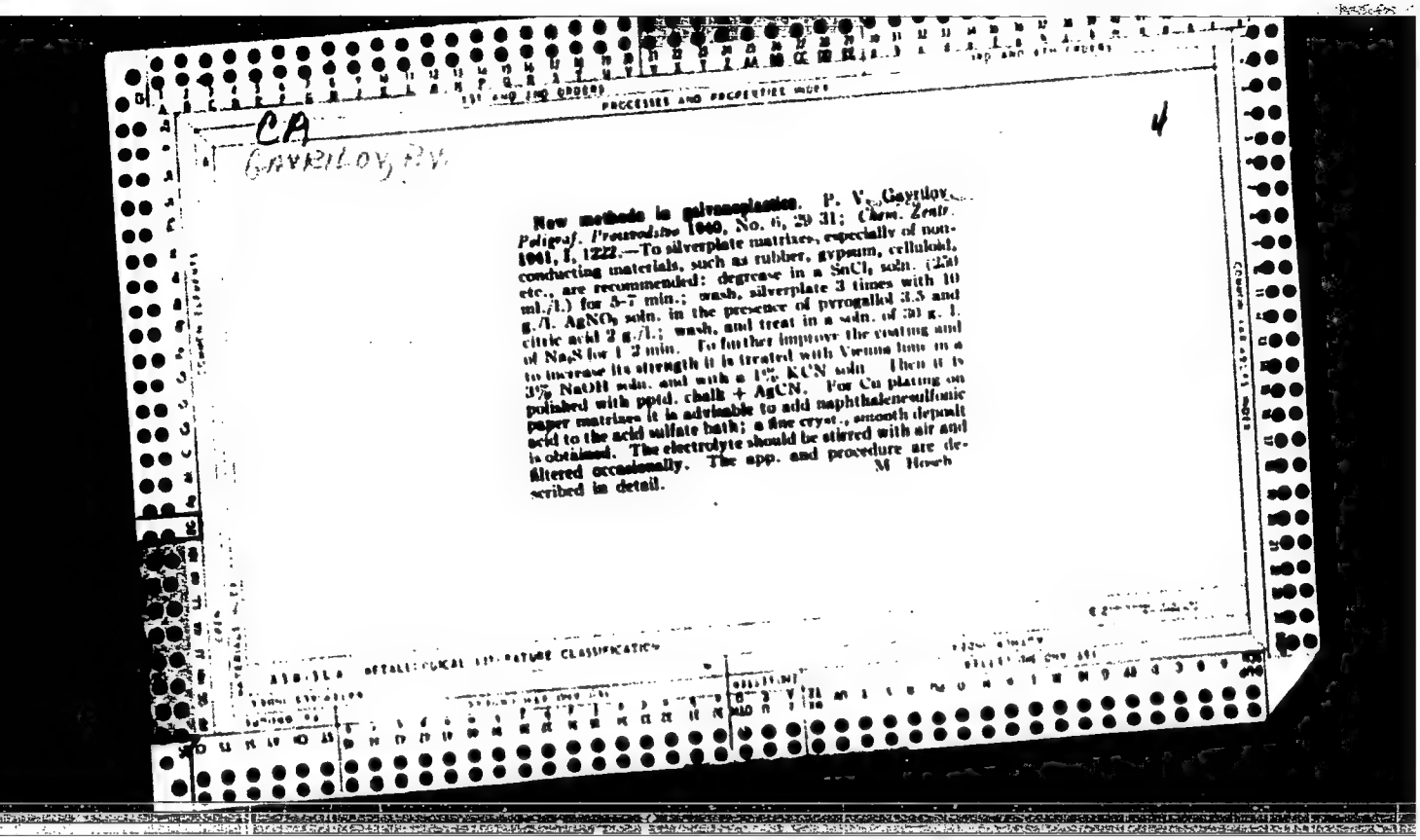
[Leningrad - Lake Onega; guide for tourists] Leningrad - Onezhskoe ozero; spravochnik po turistskomu marshrutu. Petrozavodsk, Gos. izd-vo Karel'skoi ASSR, 1957. 100 p. (MLRA 10:10)

1. Vsesoyuznyy tsentral'nyy sovet professional'nykh soyuzov.
(Leningrad--Description)

GAVRILOV, Petr Mikhaylovich; LEYBOSHITS, Leonid Mikhaylovich; SIDORENKO, A.Ye., red.; KOROBOVA, N.D., tekhn.red.

[With a tourist's pass; routes of tours planned by the Leningrad Province Tourist and Excursion Agency] Po turistskoi putevke; turistskie marshruty Leningradskogo oblastnogo turistsko-ekskursionnogo upravleniia. Moskva, Profizdat, 1962. 94 p. (MIRA 15:6)

(Russia, Northwester—Guidebooks)



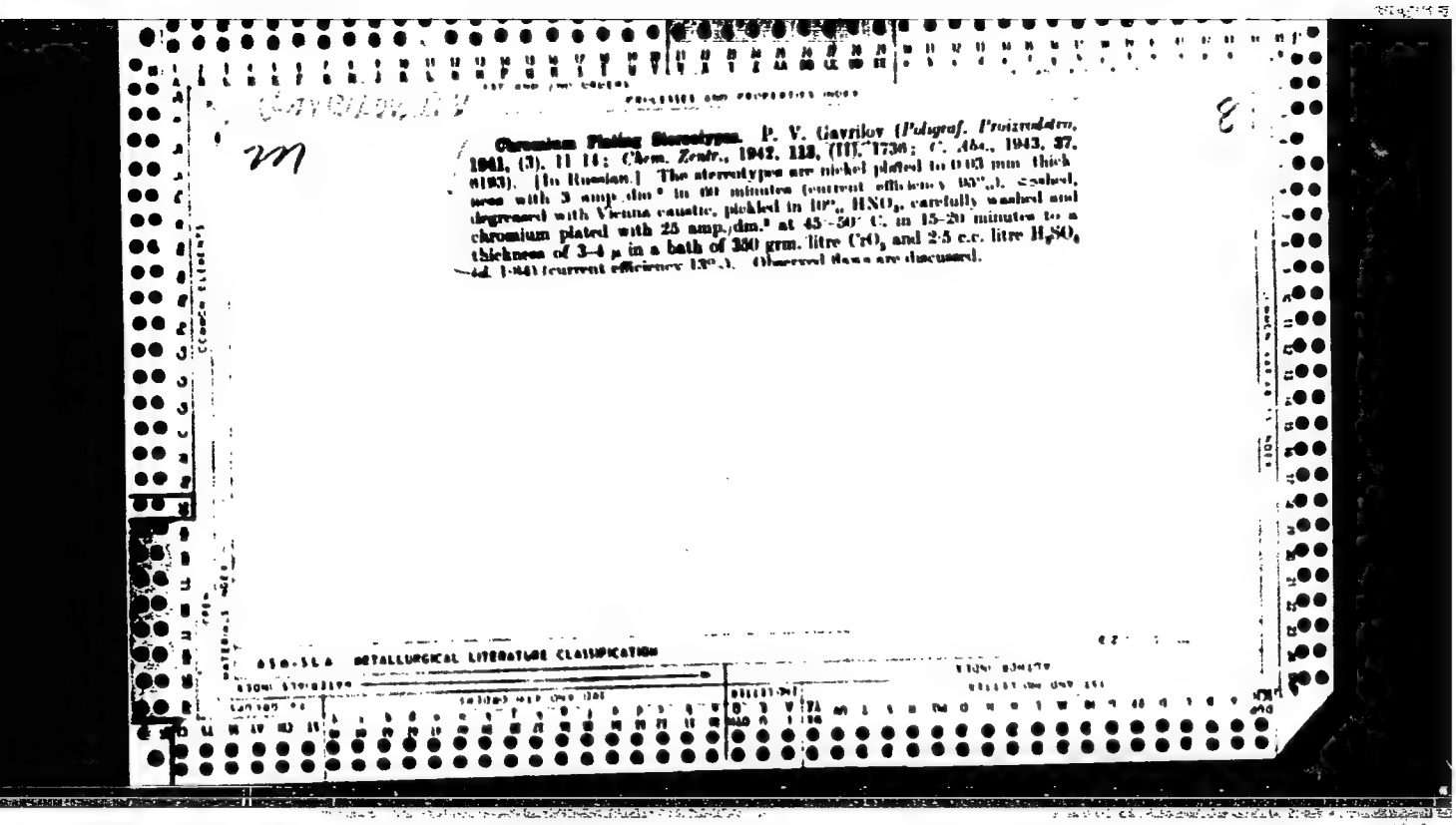
CA

GAVRILOV, P.V.

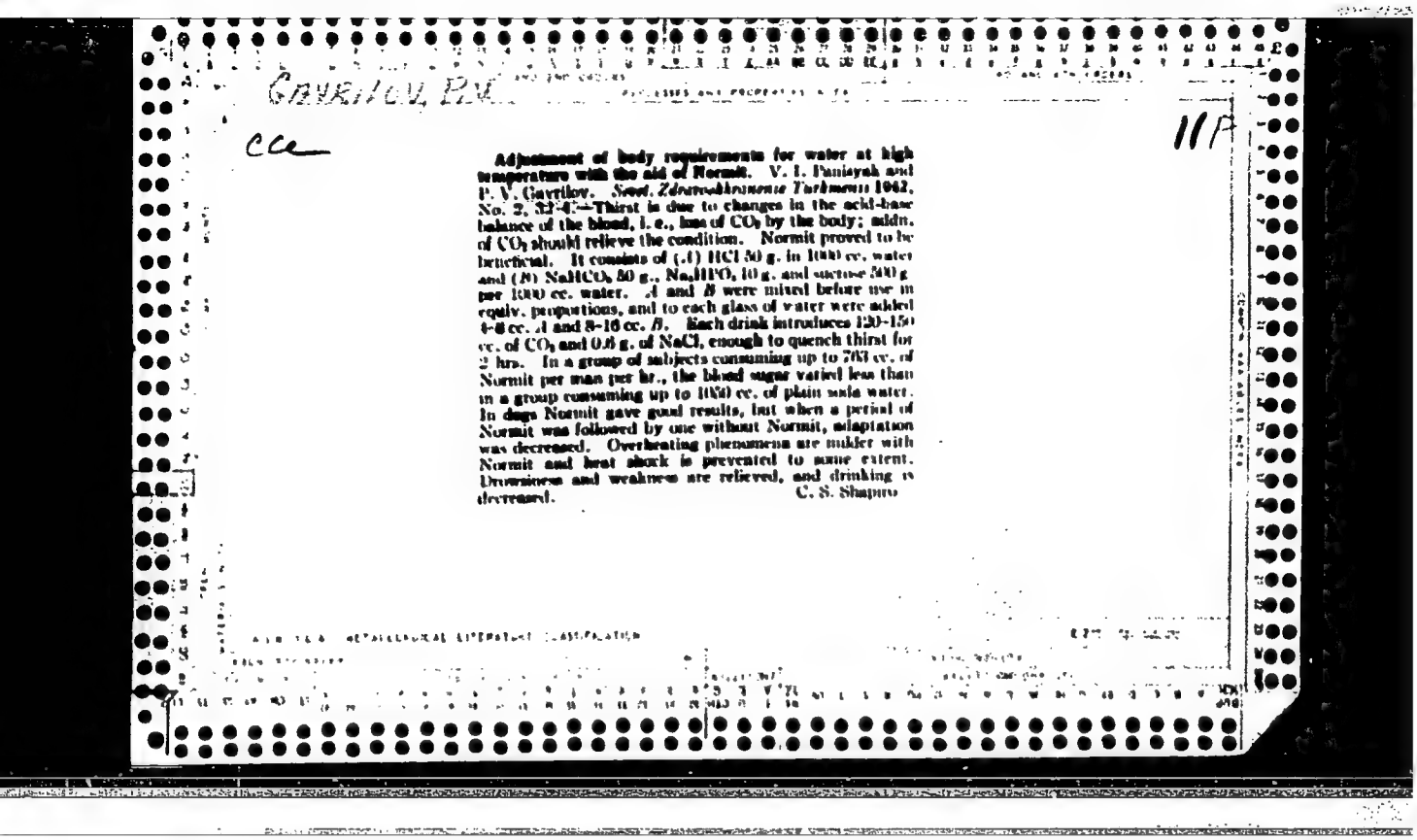
4

New methods in galvanoplastics. P. V. Gavrilov. *Poligraf. Proizvodstvo* 1960, No. 6, 29-31; *Chem. Zentr.* 1961, I, 1222.—To silverplate matrices, especially of non-conducting materials, such as rubber, gypsum, celluloid, etc., are recommended: degrease in a $SnCl_2$ soln. (25 ml./l.) for 5-7 min.; wash, silverplate 3 times with 10 g./l. $AgNO_3$ soln. in the presence of pyrogallol 3.5 and citric acid 2 g./l.; wash, and treat in a soln. of 50 g. l. of Na_2S for 1-2 min. To further improve the coating and to increase its strength it is treated with Vienna lime in a 3% NaOH soln. and with a 1% KCN soln. Then it is polished with ppd. chalk + AgCN. For Cu plating on paper matrices it is advisable to add naphthalenesulfonic acid to the acid sulfate bath; a fine cryst., smooth deposit is obtained. The electrolyte should be stirred with air and filtered occasionally. The app. and procedure are described in detail.

M. Hoch



Chromium Plating Stereotypes. P. V. Gavrilov (*Poligraf. Proizvodstvo*, 1941, (3), 11–14; *Chem. Zentr.*, 1942, 113, (III), 1736; *C. Abs.*, 1943, 37, 6193). [In Russian.] The stereotypes are nickel plated to 0·03 mm. thickness with 3 amp./dm.² in 60 minutes (current efficiency 95%), washed, degreased with Vienna caustic, pickled in 10% HNO_3, carefully washed and chromium plated with 25 amp./dm.² at 45–50° C. in 15–20 minutes to a thickness of 3–4 μ in a bath of 350 grm./litre CrO_3 and 2·5 c.c./litre H_2SO_4 (cf. I, 941) (current efficiency 13%). Observed flaws are discussed.



Adjustment of body requirements for water at high temperature with the aid of Normit. V. I. Paniyak and P. V. Gavrilov. *Sovet. Zdravookhraneniye Turkmenii* 1962, No. 2, 32-4.—Thirst is due to changes in the acid-base balance of the blood, i. e., loss of CO_2 by the body; addn. of CO_2 should relieve the condition. Normit proved to be beneficial. It consists of (*A*) HCl 50 g. in 1000 cc. water and (*B*) $NaHCO_3$ 50 g., Na_2HPO_4 10 g. and sucrose 500 g. per 1000 cc. water. *A* and *B* were mixed before use in equiv. proportions, and to each glass of water were added 4-8 cc. *A* and 8-16 cc. *B*. Each drink introduces 120-150 cc. of CO_2 and 0.6 g. of NaCl, enough to quench thirst for 2 hrs. In a group of subjects consuming up to 703 cc. of Normit per man per hr., the blood sugar varied less than in a group consuming up to 1050 cc. of plain soda water. In dogs Normit gave good results, but when a period of Normit was followed by one without Normit, adaptation was decreased. Overheating phenomena are milder with Normit and heat shock is prevented to some extent. Drowsiness and weakness are relieved, and drinking is decreased.

C. S. Shapiro

TSADIKOVICH, Fedor Moiseyevich; GAVRILOV, R.A., prof., red.; KUBENKVA, M.M., tekhn.red.

[New types of gas-discharge devices for ionic electric drives; transcript of lectures] Novye tipy gazorazriadnykh priborov dlia iunnogo elektroprivoda; stenogramma lektsii. Leningrad, 1959. 12 p. (MIRA 13:3)

(Electric driving)

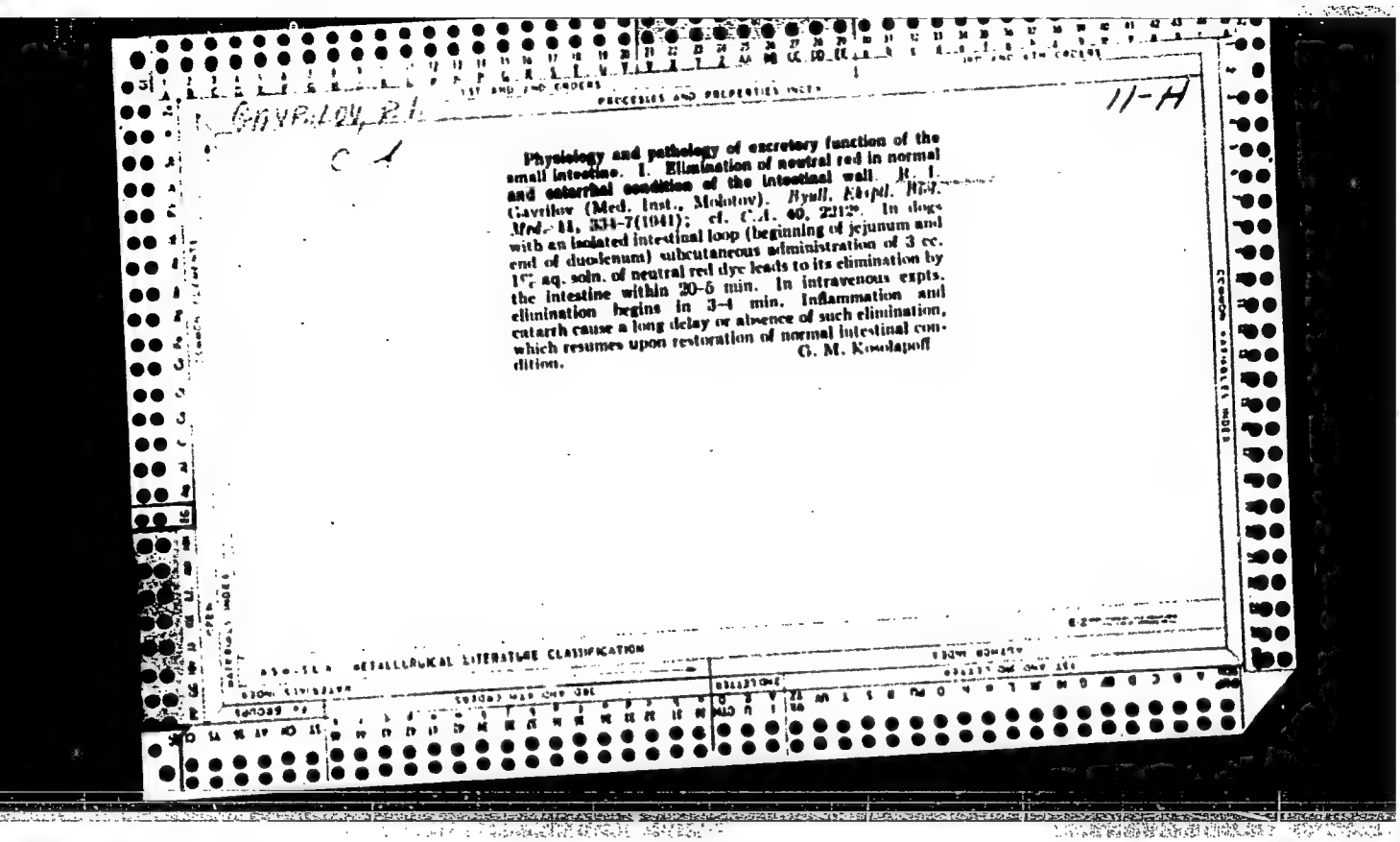
BLISKUNOV, N.A.; KAMENETSKIY, I.Ya.; GAVRILOV, R.A., retsenzent; OBOLENSKIY, S.A., red.; ZHITNIKOVA, O.S., tekhn.red.

[Production technology of electronic vacuum devices] Tekhnologiia proizvodstva elektrovakuumnykh priborov. Leningrad, Energ.izd-vo. Pt.1. [Production of cathodes, heaters, and getters] Izgotovlenie katodov, podogrevatelei i gazopogloti-telei. 1959. 219 p. (MIRA 13:3)
(Electron tubes)

MANAYEVA, Ol'ga Vasil'yevna; YAKUTA, Kira Ivanovna; GAVRILOV, R.A., red.; SOBOLEVA, Ye.M., tekhn. red.

[Economic calculations in the manufacture of electric and vacuum devices] Ekonomicheskie raschety v elektrovakuumnom proizvodstve. Moskva, Gosenergoizdat, 1963. 186 p. (MIRA 16:8)

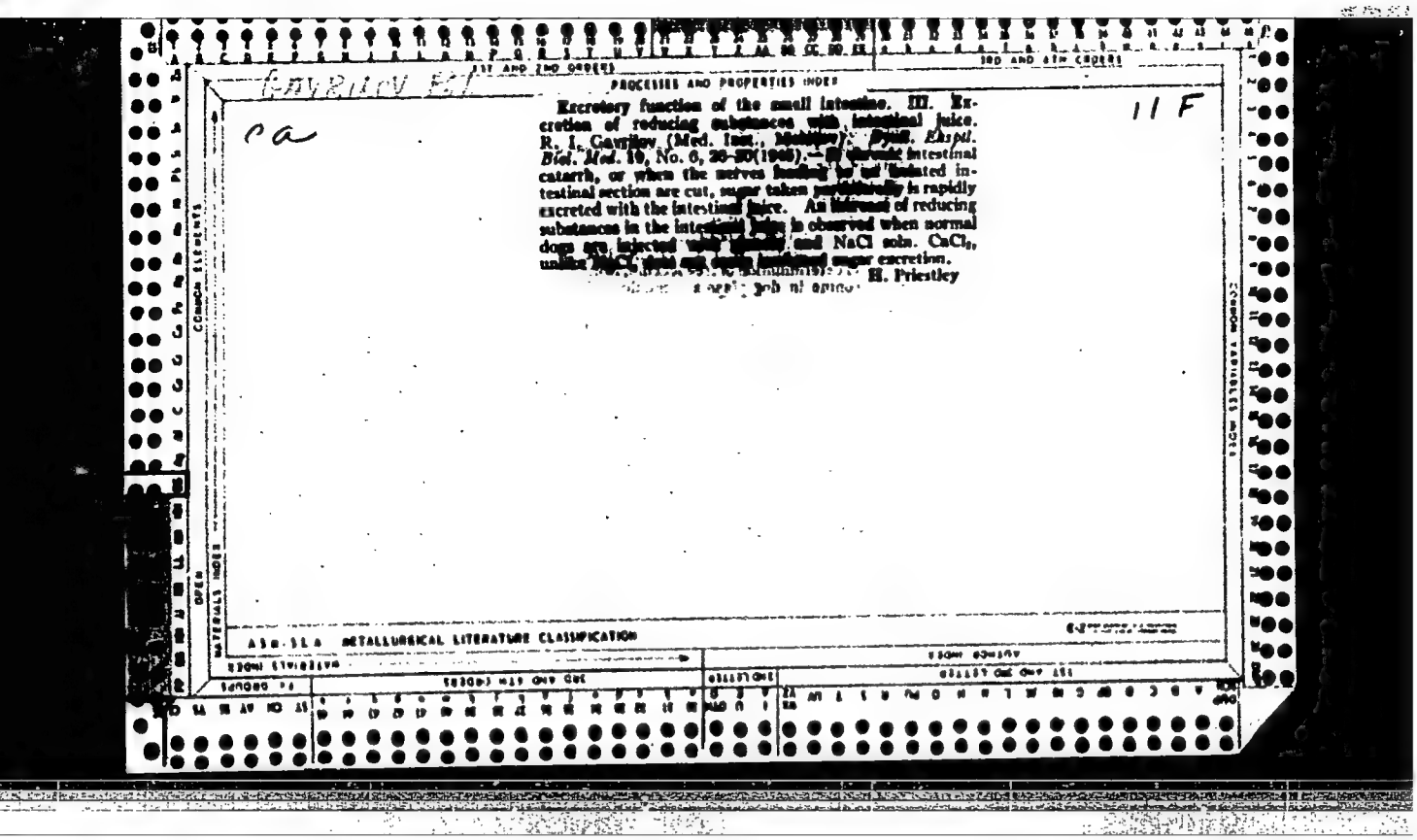
(Electric equipment industry) (Electron tubes)



11-H

Physiology and pathology of excretory function of the small intestine. I. Elimination of neutral red in normal and catarrhal condition of the intestinal wall. K. I. Gavrilov (Med. Inst., Molotov). *Byull. Eksptl. Biol. Med.* 11, 334-7(1941); cf. C.A. 40, 2212⁹. In dogs with an isolated intestinal loop (beginning of jejunum and end of duodenum) subcutaneous administration of 3 cc. 1% aq. soln. of neutral red dye leads to its elimination by the intestine within 30-5 min. In intravenous expts. elimination begins in 3-4 min. Inflammation and catarrh cause a long delay or absence of such elimination, which resumes upon restoration of normal intestinal condition.
G. M. Kosolapoff

METALLURGICAL LITERATURE CLASSIFICATION

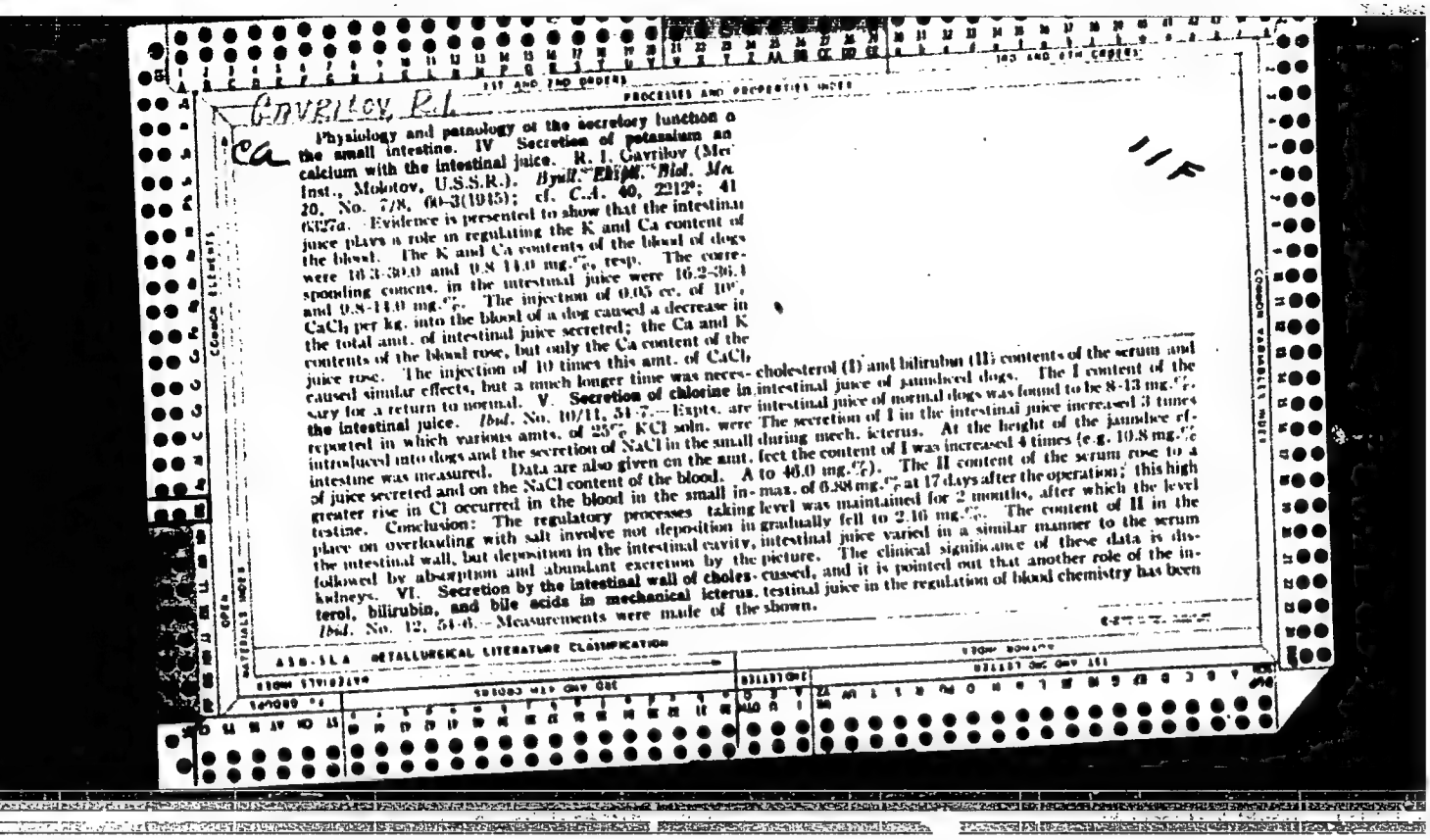


PROCESSES AND PROPERTIES INDEX

Excretory function of the small intestine. III. Excretion of reducing substances with intestinal juice. R. I. Gavrilov (Med. Inst., Moscow); *Fiziol. Zhurnal. Biol. Med.* 10, No. 6, 26-30(1940).—If chronic intestinal catarrh, or when the nerves leading to an isolated intestinal section are cut, sugar taken parenterally is rapidly excreted with the intestinal juice. An increase of reducing substances in the intestinal juice is observed when normal dogs are injected with glucose and NaCl soln. $CaCl_2$, unlike NaCl, does not cause increased sugar excretion.

H. Priestley

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION



GAVRILOV, P. I.

ca

Physiology and patnology of the secretory function o the small intestine. IV Secretion of potassium an calcium with the intestinal juice. P. I. Gavrilov (Mec Inst., Molotov, U.S.S.R.). *Byull. Eksptl. Biol. Me* 20, No. 7/8, 60-3(1945); cf. *C.A.* 40, 2212*; 41 6827a. Evidence is presented to show that the intestina juice plays a role in regulating the K and Ca content of the blood. The K and Ca contents of the blood of dogs were 16.3-30.0 and 9.8-14.0 mg.% resp. The corresponding concns. in the intestinal juice were 16.2-36.4 and 9.8-14.0 mg.%. The injection of 0.05 cc. of 10% CaCl2 per kg. into the blood of a dog caused a decrease in the total amt. of intestinal juice secreted; the Ca and K contents of the blood rose, but only the Ca content of the juice rose. The injection of 10 times this amt. of CaCl2 caused similar effects, but a much longer time was necessary for a return to normal. V. Secretion of chlorine in the intestinal juice. *Ibid.* No. 10/11, 54-7.—Expts. are reported in which various amts. of 25% KCl soln. were introduced into dogs and the secretion of NaCl in the small intestine was measured. Data are also given on the amt. of juice secreted and on the NaCl content of the blood. A greater rise in Cl occurred in the blood in the small intestine. Conclusion: The regulatory processes taking place on overloading with salt involve not deposition in the intestinal wall, but deposition in the intestinal cavity, followed by absorption and abundant excretion by the kidneys. VI. Secretion by the intestinal wall of cholesterol, bilirubin, and bile acids in mechanical icterus. *Ibid.* No. 12, 54-6.—Measurements were made of the cholesterol (I) and bilirubin (II) contents of the serum and intestinal juice of jaundiced dogs. The I content of the intestinal juice of normal dogs was found to be 8-13 mg.%. The secretion of I in the intestinal juice increased 3 times during mech. icterus. At the height of the jaundice effect the content of I was increased 4 times (e.g. 10.8 mg.% to max. of 6.88 mg.%) at 17 days after the operation; this high level was maintained for 2 months, after which the level gradually fell to 2.16 mg.%. The content of II in the intestinal juice varied in a similar manner to the serum picture. The clinical significance of these data is discussed, and it is pointed out that another role of the intestinal juice in the regulation of blood chemistry has been shown.

GAVRILOV, R.I.

SKUKINA, E.M.; LIMBERG, A.A., professor, chlen-korrespondent Akademii meditsinskikh nauk SSSR, laureat Stalinskoy premii, zavedmyushchiy; GAVRILOV, R.I., professor, direktor.

Application of plastic material AKR-7 in replacement of facial bone defects. Stomatologiia no.3:43-46 '53. (MLRA 6:7)

1. Kafedra khirurgicheskoy stomatologii Leningradskogo meditsinskogo stomatologicheskogo instituta (for Skukina and Limberg). 2. Leningradskiy meditsinskiy stomatologicheskiy institut (for Gavrilov). 3. Akademiya meditsinskikh nauk SSSR (for Limberg).
(Face--Wounds and injuries) (Surgery, Plastic)

GAVRILOV, R.I.

YADROVA, K.S.; LIMBERG, A.A., professor, zaveduyushchiy; GAVRILOV, R.I., professor, direktor.

Wooden apparatus for mechanotherapy of the lower jaw. Stomatologiia no.4: 53-54 Jl-Ag '53. (MLRA 6:9)

1. Kafedra khirurgicheskoy stomatologii Leningradskogo meditsinskogo stomatologicheskogo instituta (for Limberg and Yadrova). 2. Leningradskiy meditsinskiy stomatologicheskiy institut (for Gavrilov).
(Dental instruments and apparatus)

GAVRILOV R.I.

BASKAKOV, V.S.; VIKHLYAYEV, V.M.; GAVRILOV, R.I.; GREBNEV, P.A.; ZHEMCHUZHNIKOVA, Ye.Ye.; IDEL'SON, I.D.; MEN'SHIKOV, N.S.; MOROZOVA, Yu.G.; POPOV, V.A.; FEDOROV, S.F.; PAVLOV, Ya.M., dotsent, kandidat tekhnicheskikh nauk, redaktor; ZHIGLINSKIY, A.A., inzhener, redaktor; RUNICH, K.M., inzhener, redaktor; SOKOLOVA, L.V., tekhnicheskiy redaktor

[A collection of drawings for parts used in machine building] Sbornik mashinostroitel'nykh chertezhei dlia detalirovok. Izd. 2-oe, dop. i perer. Moskva, Gos. nauchno-tekhn. izd-vo mashinostroit. lit-ry, 1956. 1 v., 50 l. (MIRA 10:2)
(Machinery--Design)

Gavrilov, R. I.

AID P - 4306

Subject : USSR/Engineering

Card 1/1 Pub. 128 - 6/26

Authors : Anosov, A. S., Kand. Tech. Sci., Dotsent, and R. I. Gavrilov, Engineer (Leningrad Polytechnical Institute im. M. I. Kalinin)

Title : Comparative tests on friction of laminated wood-plastic materials of two kinds.

Periodical : Vest. mash., #3, p. 25-29, Mr 1956

Abstract : The Central Scientific - Research Institute for Veneers and Furniture (TsNIIFM) has produced a new laminated wood-plastic material DSP-B consisting of a veneer or plywood saturated in "Industrial 45" mineral oil. This new plastic material has been subjected to comparative tests on friction with the previously-used DSP plastic material. The results of those tests are reported. Charts, photo, 3 references, 1948-1954.

Institution : None

Submitted : No date

GAVRILOV, R.I.

USSR/Human and Animal Physiology. Digestion. Salivary Glands. T-7

Abs Jour: Ref Zhur-Biol., No 12, 1958, 55696.

Author : Gavrilov, R.I., Shastin, R.N.
Inst : Kalinin Institute of Medicine.
Title : The Dynamics of Ca^{45} Discharge by Parotid and Submaxillary Salivary Glands when Using Alimentary and Rejectable Irritants.

Orig Pub: Tr. Kalininsk. med. in-ta, 1957, vyp. 1, 122-126.

Abstract: After an intravenous injection of 100 microcurie of Ca^{45}, the discharge of Ca^{45} with the saliva was examined in dogs whose parotid (PG) and submaxillary gland (SG) ducts were exposed. The saliva discharge was provoked by powdered meat bisquits being eaten, or by an oral induction of lemon citrate. The specific salivary activity of PG was higher than specific

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USSR/Human and Animal Physiology. Digestion. Salivary Glands. T-7

Abs Jour: Ref Zhur-Biol., No 12, 1958, 55696.

blood activity. It was also 2-10 times higher than the specific salivary activity of SG. The maximum Ca^{45} discharge occurred during the first 5-15 minutes following the isotope administration.

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GAVRILOV, R.I., prof.

"Problem in the physiology and pathology of digestion"; "Trudy" of the Institute of Normal and Pathological Physiology, Vol.2, 1958. Reviewed by R.I.Gavrilov. Pat.fiziol.i eksp.terap. 4 no.2:92-93 Mr-Ap '60. (MIRA 14:5)

(DIGESTION)

GAVRILOV, R. I., prof.; SHASTIN, R. N., dotsent; KRANTIKOVA, T. V., starshiy laborant

Effect of a change in the functional state of the nervous system on the excretory activity of the salivary glands. Trudy KGMI no.2:37-44 '60. (MIRA 15:7)

1. Iz kafedry patologicheskoy fiziologii - zav. kafedroy professor R. I. Gavrilov.

(SALIVARY GLANDS) (NERVOUS SYSTEM)

GAVRILOV, S., insh.(g.Tbilisi)

"Nede" paste. Prom.koop. 12 no.11:21 N '58. (MIRA 11:11)
(Scouring compounds)

GAVRILOV, S.

Creators of technical development. Avt.transp. 38 no.2:8-9 F '60. (MIRA 13:6)
(Transportation, Automotive--Technological innovations)

GAVRILOV, S.

Valuable initiative of engineers and technicians. Avt.transp. 38 no.10: 8 '60. (MIRA 13:10)
(Motor vehicles--Maintenance and repair)

GAVRILOV, S.

"Woodstone" made with natural carnallite. Stroitel'
8 no.10:15 O '62. (MIRA,15:11)
(Carnallite)

L 44707-66 EWT(1)/EEC(k)-2/FSS-2 IJ/JKT/DD/GW

ACC NR: AN6030737 (N) SOURCE CODE: UR/9008/66/000/065/0005/0005

79
77
8

AUTHOR: Gavrilov, S. (Engineer; Lieutenant colonel)

ORG: none

TITLE: Tasks involved in the Kosmos-110 experiment

SOURCE: Krasnaya zvezda, 19 Mar 66, p. 5, col. 1-4

TOPIC TAGS: calcium, space physiology, biologic metabolism, biotelemetry, cardiovascular system, dog, weightlessness, space flight, aerospace personnel, biologic acceleration effect, blood pressure/Kosmos-110 space flight

ABSTRACT: Medical monitoring of the Kosmos-110 flight was conducted around the clock by a special group of medical specialists. Even the slightest change in the behavior or the condition of the animals was thoroughly analyzed and decisions were made on the basis of this analysis. Decisions of the medical monitoring group had the force of law for all other groups at the biosatellite control center. When the medical monitoring group changed shifts, the new group received detailed briefings on respiration frequency, pulse rhythm, body temperature, blood pressure, what time the dogs had been fed, and the condition of the on-board life support systems.

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ACC NR: AN6030737

The moving force in setting up and conducting this experiment was Boris Borisovich Yegorov. He has been planning and doing the preparatory work for this experiment ever since completing his own flight in space on the Voskhod-1. His colleagues who are assisting in the conduct of the Kosmos-110 experiment are mostly young and enthusiastic researchers like Aleksandr Alekseyevich Kisilev. Kisilev (who is chief of a laboratory in a research institute) was responsible for monitoring the condition of and any changes in the cardiovascular system of the experimental dog, Veterok.

By 15 March it became evident that the flight portion of the scientific program of the Kosmos-110 experiment had been accomplished. Although all of the equipment was functioning perfectly, and there still remained supplies of food, water, and power adequate to continue the flight, it was decided to bring down the biosatellite in its 22nd day, on 16 March 1966.

While the flight lasted the main concern of the medical group was whether the dogs could adjust to weightlessness and if so how would their organisms react to acceleration forces which arise during re-entry. It turned out, as is now known, that the dogs did adjust to weightlessness. Now that the flight is over, what interests the medical observers is the process of readjustment to terrestrial conditions.

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The behavior of the cardiovascular regulatory system of the experimental dog was selected as the criterion for judging the process of gradual adaptation of the organism to spaceflight conditions. The experimental dog was given a stimulant, which under normal terrestrial conditions evokes a completely standard reaction on the part of the cardiovascular system, a reaction which manifests itself in changes of blood pressure and heart rate. By comparing the dog's reactions to this stimulant under spaceflight conditions with those obtained on Earth, it is possible to determine the degree of adaptation which has taken place in the organism.

Very close observation of the experimental dog will be continued to monitor the process of readaptation to terrestrial conditions. How long this process will take is difficult to predict. However, the good condition of the two dogs, which withstood re-entry accelerations satisfactorily, augurs well.

A. A. Kisilev pointed out that the experimental team was also interested in the process of calcium loss which takes place under conditions of weightlessness. It is expected that the data obtained in the Kosmos-110 experiment will provide a pretty accurate answer to this problem. Another

ACC NR: AM6030737

objective was to monitor water and salt metabolism, which is very closely related to the proper selection and scheduling of the diet. It is hoped that data from the present experiment will provide a scientific basis for solving the problem of feeding on prolonged manned spaceflights. [ATD PRESS: 4198-F]

SUB CODE: 06, 22 / SUBM DATE: none

hs

Card 4/4

[redacted], B. A., [redacted], N. A., ABRAMOV, A. I., VLADIMIRSKIY, V. V., [redacted], S. Y., and GALANIN, A. D.

"A Heavy-Water Research-Reactor," a paper presented at the Atoms for Peace Conferecne, Geneva, Switzerland, 1955

ALIKHANOV, A.I.; VLADIMIRSKIY, V.V.; NIKITIN, S.Ya.; GALANIN, A.D.; GAVRILOV, S.A.; BURGOV, N.A.

[Heavy water experimental reactor for physical research] Opytnyi fizicheskii reaktor s tiazheloi vodoi. Moskva, 1955. 15 p. (MIRA 14:7)

(Deuterium oxide) (Nuclear reactors)

GAVRILOV, S.A.

Certain indexes of reactivity in children treated with prolonged sleep for rheumatism. Vopr. pediat. 20 no.4:9-13 July-Aug. 1952. (CLML 23:2)

1. Of the Department of the Propedeutics of Children's Diseases (Head -- A. B. Volovik), Leningrad Pediatric Medical Institute.

GAVRILOV, S. A.

"Reactivity Changes in Rheumatic Children." Dr Med Sci, Leningrad Pediatrics Medical Inst, Leningrad, 1954. (KL, No 3, Jan 55)

Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (12)
SO: Sum. No. 556, 24 Jun 55

GAVRILOV, S.A.; ZHEMCHUZHNIKOV, A.A.

Precast reinforced-concrete supports of rotary kilns. Prom. stroi. 38 no.11:21-22 '60. (MIRA 13:10)
(Precast concrete construction)
(Kilns, Rotary)

GAVRILOV, S.A.; SHEMCHUZHNIKOV, A.A.

Precast reinforced concrete foundations for rotary cement kilns.
Sbor.trud. Novorossgiprotsementa no.1:55-61 '61. (MIRA 16:2)
(Kilns, Rotary--Foundations)
(Precast concrete construction)

GAVRILOV, S.A., mladshiy nauchnyy sotrudnik

Indications for extensive thoracoplasty in tuberculous pleural empyema. Probl. tub. 40 no.6:43-48 '62. (MIRA 16:12)

1. Iz sanatorno-khirurgicheskogo otdeleniya (zav. - kand. med. nauk L.I.Matuzkova) Sverdlovskogo instituta tuberkuleza Ministerstva zdravookhraneniya RSFSR (dir. - prof. I.A. Shaklein, nauchnyy rukovoditel' N.G.Butkin).

GAVRILOV, K.A., inzh.; OVCHARENKO, A.Ya., inzh.

Improve the effectiveness of dust removal in industrial processes. Tsement 31 no.5:5-6 S-O '65. (MIRA 18:10)

1. Nauchno-issledovatel'skiy i proyektnyy institut po gazoochistnym sooruzheniyam, tekhnike bezopasnosti i okhrane truda v promyshlennosti stroitel'nykh materialov (NIPIOTstrom).

GAVRILOV,S.G., Cand Med Sci--(diss) "Prophylaxis and treatment of complications after splenectomy in patients with [illegible] diseases of the blood system." Len, 1958. 17 pp (Min of Health RSFSR. Len Sanitary Hygiene Med Inst), 200 copies (KL,49-58, 126)

GAVRILOV, S.G., aspirant

Thromboses of the vessels of the portal system following splenectomy. Akt.vop.perel.krovi no.6:132-138 '58. (MIRA 13:1)

1. Khirurgicheskaya klinika Leningradskogo instituta perelivaniya krovi (zav. klinikoy - chlen-korrespondent AMN SSSR prof. A.N. Filatov).
(THROMBOSIS) (PORTAL VEIN) (SPLEEN--SURGERY)

GAVRILOV, S.G.

Indications and results of splenectomy in hemolytic anemia [with summary in English]. Vest. khir. 80 no.2:77-82 F '58. (MIRA 11:3)

1. Iz khirurgicheskoy kliniki (zav.-prof. A.N.Filatov) Leningradskogo ordena Trudovogo Krasnogo Znameni nauchno-issledovatel'skogo instituta perelivaniya krovi. Adres avtora: Leningrad, 2-ya Sovetskaya, d.16, Institut perelivaniya krovi.

(ANEMIA, HEMOLYTIC, surg.
splenectomy, indic. & results (Rus)
(SPLEEN, surg.
excis. in hemolytic anemia, indic. & results (Rus)

GAVRILOV, S.G.

Use of intratracheal anesthesia in combination with muscle relaxants in surgery. Trudy LSGMI 59:12-21 '60. (MIRA 14:9)

1. Klinika obshchey khirurgii Leningradskogo sanitarno-gigiyenicheskogo meditsinskogo instituta (zav. klinikoy - prof. I.M.Tal'man) i Khirurgicheskaya klinika Leningradskogo instituta perelivaniya krovi (zav. klinikoy - chlen-korrespondent AMN SSSR prof. A.N. Filatov).
(INTRATRACHEAL ANESTHESIA) (MUSCLE RELAXANTS)

GAVRILOV, S. G.

AUTHOR: None Given

SOV/6-58-6-18/21

TITLE: Chronicle (Khronika)

PERIODICAL: Geodeziya i kartografiya, 1958, Nr 6, pp. 77-78 (USSR)

ABSTRACT: From April 25 - 28, 1958 a Conference of the Chief Engineers and Directors of the Technical Control of Aerial Surveying Enterprises took place at the Moscow Central Bureau of Surveying and Cartography of the Ministry of the Interior of the USSR (Glavnoye upravleniye geodezii i kartografii MVD SSSR). It dealt with the improvement of the production organization and the quality of topographical work in surveying of official importance. The following lectures were held: S. G. Sudakov, Deputy Director of the Glavnoye upravleniye geodezii i kartografii MVD SSSR on: "Main Problems in the Further Improvement of Topographical Work in Surveying of Official Importance". The Chief-Engineers of the enterprises held the following lectures: S. G. Gavrilov - "Technical Projecting of Topographical-Geodesic Field Work". S. T. Yurov - "Comprehensive Performance of the Position- and Elevation Orientation of Aerial Photographs", B. D. Zaprudnov - "Taking a Combined Photograph of Flat Country Covered With Forests", L. A.

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Kashin - "Organization of the Financial Administration in Field Subdivisions of the Aerial Surveying Enterprise North-Caucasus"; M. V. Avilov, Director of the Stereo Works at the MAGP - "Control Operations on Stereotopographical Photographs at the MAGP". - The scientific members of the staff of the TsNIIGAiK: held the following lectures:
B. A. Larin - "The Possibilities of Using the Light-Range-Finder in Compiling Geodesic Constructions". V. Ya. Mikhaylov - "On the Improvement of the Photographic Quality of Photographs". P. I. Durneva -"New Geodesic Instruments for the Preparation of the Basis for Topographic Photographs". M. S. Uspenskiy - "Some Results of the Stability Investigation of Traverse Stations and Monuments in the Area of the USSR". M. D. Konshin - "On Using the Elements of External Orientation in the Photogrammetric Evaluation of Aerial Photographs, and on the Increase of the Accuracy in Stereoscopic Measurements". G. D. Krasheninnikov - "On the Stereograph by Drobyshev". - The members of the staff of the departments of the GUGK held the following lectures:
G. S. D'yakov - "On the Stage of Technical Studies at Aerial Surveying Enterprises". V. N. Shishkin - " The Work of Rationalizing and Introducing the New Technique to the Topo-

graphic-Geodesic Production of the GUGK in 1957". A. P. Shcheglov - "Analysis of the Measuring Accuracy in the Triangulation of 2nd and 3rd order in the Years 1956-1957". B. V. Troitskiy - "Marking Control Points for the Geodesic Preparation of Photographs". I. V. Krylov - "Analytical Method for the Determination of Position- and Altitude Traverse Stations".

Based on the lectures it could be found that during the last years the topographic photographs of the scale 1:25 000 and 1:10 000 have undergone great development.

The conference decided to invite the representatives of the aerial surveying enterprises of the departments of the State Geodesic Control as well as of the interested offices to a conference at the end of 1958 and to investigate the project for the plan of development of the geodesic tasks in 1959-1965.

1. Cartography 2. Aerial photography 3. Scientific reports

AUTHOR: Gavrilov, S. G. SOV/6-58-7-5/19

TITLE: Planning the Working Technique of Topographical and Geodetical Field Work (Rabocheye tekhnicheskoye proyektirovaniye polevykh topografo-geodezicheskikh rabot)

PERIODICAL: Geodeziya i kartografiya, 1958, Nr 7, pp. 28-34 (USSR)

ABSTRACT: In the "Aerial Surveying Authority North West" the planning of the work in the field sections is carried out with the participation of the working collaborators and of the directors of topographic and geodetical work. Planning is done in two stages: 1) The general technical projects are compiled in the planning bureau and 2) the detailed working plans are compiled in the field sections with the immediate participation of the working collaborators and of the directors of topographic and geodetic field work. Two main problems are presented: 1) On the basis of the general basis of the technical project the actual technique used in field work is to be laid down for each section and for each type of work. 2) The most useful and most economic organization and the sequence of the work to be done by the sub-sections is

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Planning the Working Technique of Topographical and Geodetical Field Work

to be given. This is a general description of methods employed in the planning of the work required for a determination of elevation and position in stereotopographical surveying.

1. Geodesics—Organization 2. Aerial photography—Applications 3. Mapping

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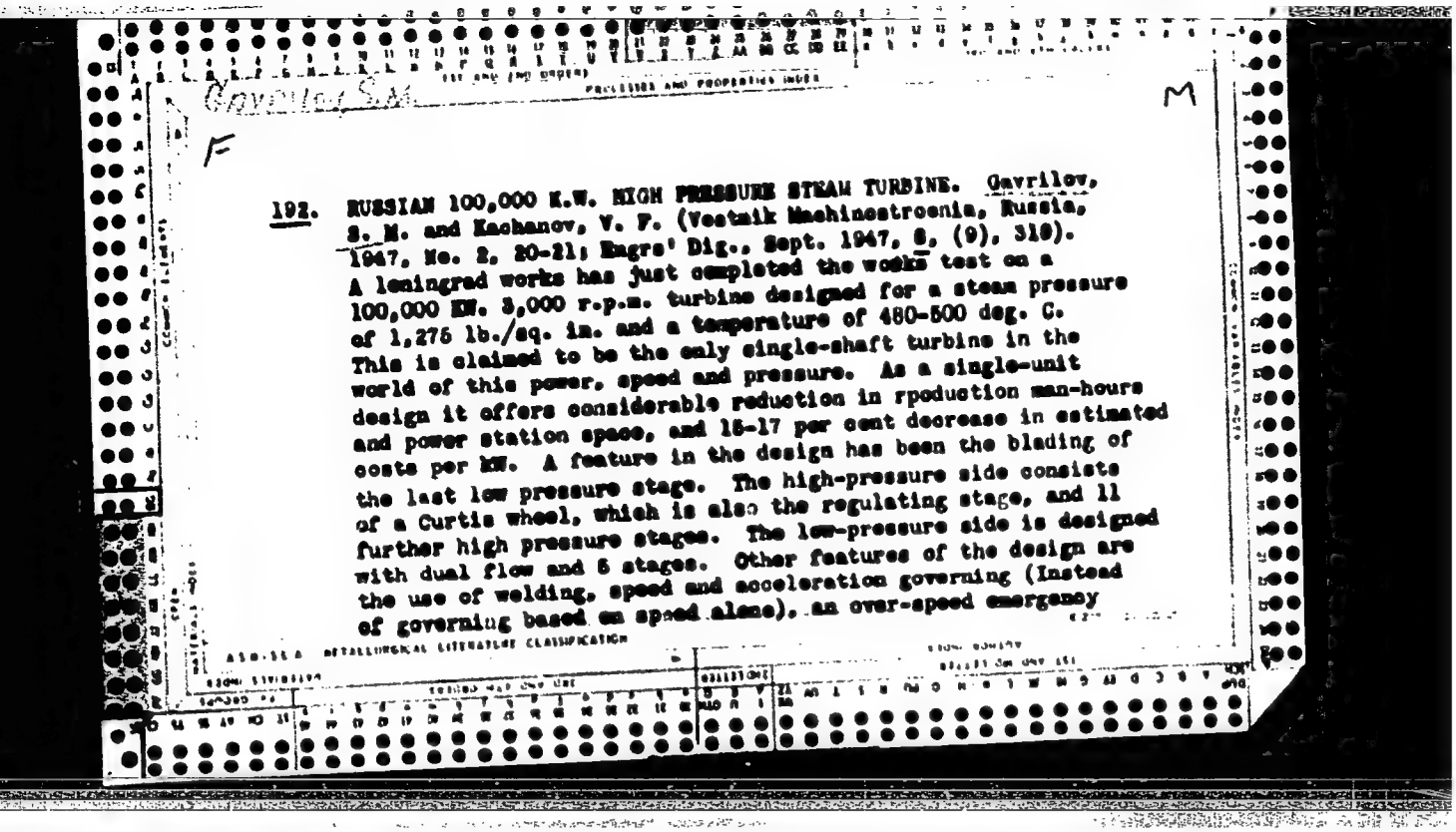
PERVOZVANSKIY, V.V.; GAVRILOV, S.G.

Results of work in the engraving of topographical maps.
Geod. i kart. no.9:50-54 S '61. (MIRA 14:9)
(Map printing)

GAVRIKOV, S.I.; POPOV, L.N.

Geology and metal potential of volcanic rocks in the Okhotsk-Indigirka divide. Geol. i geofiz. no.7:97-106 '62. (MIRA 16:7)

1. Yakutskoye geologicheskoye upravleniye.
(Soviet Far East—Rocks, Igneous)
(Soviet Far East—Ore deposits)



192. RUSSIAN 100,000 K.W. HIGH PRESSURE STEAM TURBINE. Gavrilov, S. M. and Kachanov, V. F. (Vestnik Mashinostroenia, Russia, 1947, No. 2, 20-21; Engrs' Dig., Sept. 1947, 8, (9), 319). A leningrad works has just completed the works test on a 100,000 KW. 3,000 r.p.m. turbine designed for a steam pressure of 1,275 lb./sq. in. and a temperature of 480-500 deg. C. This is claimed to be the only single-shaft turbine in the world of this power, speed and pressure. As a single-unit design it offers considerable reduction in rpoduction man-hours and power station space, and 15-17 per cent decrease in estimated costs per KW. A feature in the design has been the blading of the last low pressure stage. The high-pressure side consists of a Curtis wheel, which is also the regulating stage, and 11 further high pressure stages. The low-pressure side is designed with dual flow and 5 stages. Other features of the design are the use of welding, speed and acceleration governing (Instead of governing based on speed alone), an over-speed emergency

governor, and an adjustable load limiting device which also acts as an underspeed shut-down device. The maximum speed rise is only 4 1/2 per cent. The regulating oil pressure has been raised to 170 lb./sq. in. as against the usual 110 lb./sq. in. Both this and the bearing oil are provided from a gear-driven pump, and a steam-driven pump is provided for starting up. This turbine is designed on the "sub-unit" principle so that various portions of it can be employed in other machines. The complete unit weighs 263 tons, the high pressure rotor 8.5 tons and the low pressure rotor 18.8 tons.

GAVRILOV, S.M., inzhener; KACHANOV, V.F., inzhener.

Newly designed blast furnace equipment. Vest.mash.27 no.7:30-32 Jl '47. (Blast furnaces) (MLRA 9:4)

GAVRILOV, S. M. and V. F. KACHANOV.

Ekskavator E-3 Uralmashzavoda. (Vestn. Mash., 1948, no. 1, -. 24-25)

The E-3 excavator of the Ural machine-building plant.

DLC: TN4.V4

SO: Manufacturing and Mechanical Engineering in the Soviet Union, Library of Congress, 1953.

GAVRILOV, S. M. and V. F. KACHANOV.

Shakhtnaia pod"emnaia mashina s bitsilindricheskim barabanom. (Vestn. Mash., 1948, no. 1, p. 26-27)

Refers to "Novo-Kramatorskii" Stalin machine-building plant.

Mine hoisting machine with a two-cylinder drum.

DLC: TN4.V4

SO: Manufacturing and Mechanical Engineering in the Soviet Union, Library of Congress, 1953.

GAVRILOV, S. M. and V. F. KACHANOV.

Novyi rudno-ugol'nyi peregruzhatel. (Vestn. Mash., 1948, no.3, p. 22-23)

Refers to "Staro-Kramatorskii" plant.

The new coal-mining transshipment crane.

DLC:TN4.V4

SO: Manufacturing and Mechanical Engineering in the Soviet Union, Library of Congress, 1953.

GAVRILOV, S. M.

USSR/Engineering
Turbines, Steam

Aug 48

"New 50,000-Kilowatt High-Pressure Steam Turbines Constructed by the Leningrad Metal Factory Imeni Stalin," S. M. Gavrilov, V. F. Kachanov, Engineers, 1 p

"Vest Mashinostroy" No 8

Describes turbines designed and constructed by Leningrad Metal Factory. Tabulates characteristics. Sketch showing exterior of turbine appears on cover of journal.

14/49T50

GAVRILOV S.M.

KOLOKOLOV, N.V.; KARPYSHEV, M.S.; PARTIKEVICH, F.V.; STOLPNER, I.S.; SHOVKUN, V.Ye.; GAVRILOV, S.M., inzhener, retsenzent; PASTERNAK, N.A., inzhener, redaktor; MATVEYEVA, Ye.N., tekhnicheskiy redaktor; POPOVA, S.M., tekhnicheskiy redaktor.

[Production practice in the heavy machinery industry (Novyy Kramatorsk Stalin Machinery Plant at Elektrostal')] Proizvodstvennyi opyt v tiazhelom mashinostroenii. (Novo-Kramatorskii mashinostroitel'nyi zavod imeni Stalina, g. Elektrostal'.) Moskva, Gos. nauchno-tekhn. izd-vo mashinostroit. lit-ry. Vol. 1. 1952. 138 p. [Microfilm] (MLRA 7:10)

1. Novo-Kramatorskiy mashinostroitel'nyy zavod imeni Stalina, g. Elektrostal'.
(Machine-shop practice)

GAVRILOV, S. M.

AUTHOR: Gavrilov, S.M., Engineer. 122-2-20/23

TITLE: A conference of designers at the Ministry for Heavy Engineering (Soveshchaniye Konstruktorov v Ministerstve Tyazhelogo Mashinostroyeniya)

PERIODICAL: "Vestnik Mashinostroyeniya" (Engineering Journal), 1957, No.2, pp. 85 - 88 (U.S.S.R.)

ABSTRACT: The conference was opened by the Minister for Heavy Engineering, K.A. Petukhov, who noted the improvements achieved recently in their design activity. The volume of project and design work in 1956 was 3.5 - 4 times greater than in 1955. This was achieved by increasing the numbers of design staffs and improving the information services on Soviet and foreign progress. They are now in a position to create new machines, taking foreign experience into account. Further advances in quality are needed to overcome existing shortcomings. Particular attention is to be devoted to fundamentally novel production processes destined to improve the productivity of labour. Examples are "periodic" profile rolling and electric tube welding mills, created by the TsKBMM, headed by the Corresponding Member of the Academy of Sciences of the U.S.S.R., K.I. Tselikov. Often, high output machinery is not accompanied

Card 1/14 by adequate service conditions, e.g. the drilling equipment